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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/710,460	11/10/2000	Ken V. Pandya	206248	5210

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EXAMINER

CINTINS, IVARS C

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 04/09/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/710,460

Applicant(s)

Pandya

Examiner

Ivars Cintins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 8, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3, 6-8, 10, 11, 13, 17-19, 22, and 24-31 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3, 6-8, 17-19, 22, 24-28, 30, and 31 is/are rejected.
- 7) ☒ Claim(s) 10, 11, 13, and 29 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17-19 and 22 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The terms "the process fluid" (claim 17, line 4) and "said at least one restrictor opening" (claim 17, line 13) lack direct antecedent basis in the claim, and are hence somewhat indefinite. Claims 18 and 19 depend from indefinite claim 17, and are therefore themselves indefinite. Claim 22 is also indefinite, because it depends from a canceled claim (i.e. claim 21).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17, 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weis et al. (U.S. Patent No. 3,730,348). The reference discloses a process for demineralizing a fluid (see

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col. 1, line 5) with a device comprising: a manifold having a plurality of nozzles 30, which nozzles include a screen 40 defining an interior cavity, and a hollow flow restrictor 52 disposed in the interior cavity, which flow restrictor includes at least one orifice 56 positioned in the interior cavity (see col. 3, lines 55-57). Accordingly, this reference discloses the claimed invention with the exception of the recited relationship between the collective orifice area and the screen opening area, and the regenerating step (claim 18). However, the exact relationship between the collective orifice area and the screen opening area is not seen to materially affect the overall results of the reference process, or to produce any new and unexpected result; and is therefore deemed to be an obvious matter of choice, which is insufficient to patentably distinguish the claims. Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made to regenerate the ion exchange material of the reference, in order to enable its reuse.

Claims 3, 6-8, 24-28, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weis et al. as applied above, further in view of Duden (U.S. Patent No. 1,784,893). Weis et al., as modified above, discloses the claimed invention with the

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exception of the recited inlet manifold, and the shape of the screen member (claims 6-8). Duden discloses a similar ion exchange system, which system includes upper and lower manifolds. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system of Weis et al. with an additional manifold at the inlet, as suggested by Duden, in order to provide better influent flow distribution for the system of this primary reference. Also, the exact shape of the screen element in this modified primary reference system is not seen to materially affect the overall operation of this system, or to produce any new and unexpected result; and is therefore deemed to be obvious matters of choice in design, insufficient to patentably distinguish claims 6-8.

Claims 10, 11, 13 and 29 are objected to as being dependent upon a rejected base claim, but would be allowed if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Claim 19 would also be allowed if amended to overcome the above rejection under 35 U.S.C. § 112, and if further rewritten in independent form to include all of the limitations of parent claim 17.

Applicant's arguments filed January 8, 2003 have been noted and carefully considered but are not deemed to be persuasive of patentability. Applicant argues that Weis et al. relates to a

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filtration device, rather than a fluid demineralization apparatus. It is pointed out, however, that although this reference system can be used as a filtration device, it can also be used as a demineralization apparatus (see col. 1, line 5).

Applicant also argues that the internal pipe orifices in the device of Weis et al. appear to define significantly larger open areas. Again, this argument has been noted and carefully considered, but is not deemed to be persuasive of patentability. It is pointed out that although each orifice in the reference device appears to have a larger area than each opening in the screen member, the number of openings in this screen is considerably greater than the number of orifices in the restrictor. Accordingly, the collective open area of the screen could very easily be greater than the total area of the orifices in the restrictor. In any event, the record does not show, e.g. by comparative test data, that Applicant is able to obtain any new and unexpected result by utilizing nozzles having the recited screen to restrictor opening area relationship; and absent such a showing, the exact relationship between the area of the screen openings and the area of the restrictor orifice openings in the reference system is deemed to be an obvious matter of choice in design, insufficient to patentably distinguish the claims.

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THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is (703) 308-3840. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

The fax phone numbers for this art unit are: (703) 872-9311 for "Official" faxes after Final Rejection; (703) 872-9310 for all other "Official" faxes; and (703) 872-9492 for "Draft" and other "Unofficial" faxes.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Ivars C. Cintins
Ivars C. Cintins
Primary Examiner
Art Unit 1724

I. Cintins
April 5, 2003